EnergyAustralia

LIGHT THE WAY

EnergyAustralia Yallourn

BUSHFIRE MITIGATION PLAN 2024 / 2025

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VERSION HISTORY

Version	Date	Author	Reason
1.0	April 2011	Paul Metlikovec	Initial Issue
2.0	September 2011	Otto Stumpf	Changes as a result of advice from ESV
3.0	July 2012	Otto Stumpf	Changes made to accommodate the recommendations from an internal audit conducted in June 2012
3.1	September 2012	Rachel Alexander	Corporate Re-brand and minor formatting changes
4.0	June 2013	Otto Stumpf	Periodic Review
5.0	May 2014	Otto Stumpf	Periodic Review / To meet the new regulations, audit recommendations and broader scope
6.0	May 2015	Otto Stumpf	Periodic Review
7.0	May 2016	Otto Stumpf	Periodic Review
8.0	May 2017	Otto Stumpf	Minor changes to the objective (clause 6), the preventative strategies (clause 8) and clause 9.2/10
8.1	June 2017	Rachel Alexander	Update to References Required
9.0	June 2018	Brad Miller	Periodic Review
10.0	Nov 2019	Brad Miller	Periodic Review
10.1	Dec 2019	Brad Miller	Review to address ESV feedback comments
11.0	June 2020	Brad Miller	Periodic Review
12.0	June 2021	Brad Miller	Annual Review
13.0	June 2022	Brad Miller	Annual Review
13.1	September 2022	Brad Miller	Address feedback comments from ESV review of 2022/23 plan
14.0	October 2023	Mathew Howlett	Periodic Review
14.1	September 2023	Mathew Howlett	Address feedback comments from ESV review of 2022/23 plan
15.0	**May 2024**	**Mathew Howlett**	Annual Review
15.1	**September 2024**	**Mathew Howlett**	Address feedback comments from ESV review of 2024/25 plan
15.2	**October 2024**	**Mathew Howlett**	Address feedback comments from ESV review of 2024/25 plan

AMENDMENTS IN THIS VERSION

No.	Amendment Summary	Amended By
Version 15.2		
1.	Update date of plan and review.	M Howlett
2.	Update details of person responsible for plan preparation.	M Howlett
3.	Update Electric Line Clearance Plans for EAY and Ausnet Assets.	M Howlett
4.	Update definitions.	M Howlett
5.	General update of wording and procedure references.	M Howlett
6.	Remove reference to Appendix 4 being Maximo Work Orders	M Howlett
7.	Update reference to most recent EnergySafe approved Cert 2 courses	M Howlett
8.	Update reference to Maximo Work Order and associated timeframes for completion.	M Howlett
9.	Include information about works to remove YCB611 Pole #2 from service.	M Howlett

PURPOSE & SCOPE

WHAT The objective of the Bushfire Mitigation Plan is to ensure that there are procedures and processes at the Yallourn site to mitigate against the spread of fire that initiates internally as well as the infiltration of external fires. The procedures also mitigate the initiation of fires from “at-risk” electrical lines and provide a controlled reduction in fire risk from the site assets.

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	The Bushfire Mitigation Plan must fully comply with the Electricity Safety (Bushfire Mitigation) Regulation. The Bushfire Mitigation Plan must be monitored and audited each year to identify any deficiencies in the plan. The plan must then be updated and formally submitted to Energy Safe Victoria (ESV) before the 1 July of each year.
WHEN	This procedure is to be utilised when the Bushfire Mitigation Plan needs to be implemented, reviewed and updated.
WHO	This procedure shall be followed by all responsible personnel who implement the Bushfire Mitigation Plan and the nominated responsible officer who reviews the plan.
WHY	This procedure has been developed to comply with the Electricity Safety (Bushfire Mitigation) Regulation and the requirements of the FRV, CFA and Dept of State, Development and Business Innovation. The Bushfire Mitigation Plan must be reviewed annually, updated and checked against the current Electricity Safety (Bushfire Mitigation) Regulation, then sent to ESV before 1 July to ensure compliance with the Regulation. EnergyAustralia Yallourn have not sought exemption from any requirements of these regulations.

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TABLE OF CONTENTS

1 CONTACTS 5

2 DISTRIBUTION 7

3 INTRODUCTION 7

4 BUSHFIRE MITIGATION POLICY 8

5 DEFINITIONS 8

6 OBJECTIVES OF THE PLAN 8

6.1 NON ENERGYAUSTRALIA OVERHEAD LINES 9

7 SITE RESPONSIBILITIES 9

7.1 MANAGER RESPONSIBILITIES 9
7.2 SITE MANAGEMENT PROCEDURE FOR THE BMP 10
7.3 SITE MAP 10

8 PREVENTATIVE STRATEGIES 10

9 LIST OF ALL WORKS 11

9.1 ELECTRICAL ASSET MANAGEMENT 11
9.1.1 YCB611 – Pole #2 Works 12
9.2 WILDFIRE RISK MITIGATION COMMITTEE 12
9.3 HOT WORKS 14
9.4 DAYS OF TOTAL FIRE BAN 14
9.5 INVESTIGATIONS 14
9.6 TRAINING AND COMPETENCE 14
9.7 EXTERNAL AGENCIES 15
9.8 FIRE MANAGEMENT IN THE MINE 15
9.9 FIRE DETECTION 15
9.10 FIRE EXTINGUISHERS 15
9.11 VEHICLE AUTHORISATION 16
9.12 RETICULATED WATER FIRE SUPPRESSION SYSTEM 16
9.13 CONTRACTORS 16

10 MONITORING 16

11 AUDITING AND REPORTING 17

12 REFERENCES 18

APPENDIX 1 - ELECTRIC LINE CLEARANCE PLAN – EA ASSETS 19

APPENDIX 2 – ELECTRIC LINE CLEARANCE PLAN – AUSNET ASSETS 20

APPENDIX 3 - AT RISK ELECTRIC LINES DETAIL 21

APPENDIX 4 - ELECTRICITY SAFETY (BUSHFIRE MITIGATION) REGULATION REFERENCE TABLE 22

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Emergency Contact Number for Immediate Action	*The EnergyAustralia Yallourn emergency services control room is staffed 24x7 and is the initial contact point for all emergencies.*
Telephone	**1800 04 3333**
Email	peter.dixon@energyaustralia.com.au

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2 Distribution

Copies of this document have been issued to Energy Safe Victoria

A hard copy of the Yallourn Bushfire Mitigation Plan (BMP) will be available at the EnergyAustralia Yallourn principal office between the hours of 8:00am and 4:00pm weekdays; please contact the Administration Leader on telephone 5128 2803 for a current copy. Copies of the plan are available to the public for inspection. The EnergyAustralia Yallourn address is Eastern Road Yallourn Vic 3825. All hard copies will be stamped as uncontrolled.

The Yallourn BMP can be found online at the Energy Australia website:

https://www.energyaustralia.com.au/about-us/energy-generation/yallourn-power-station/ensuring-we-do-right-thing

3 Introduction

EnergyAustralia Yallourn Pty Ltd is the private owner and operator of the Yallourn W Power Station and the adjacent Yallourn Mine which are located in the Latrobe Valley approximately 150 km's east of Melbourne. EnergyAustralia Yallourn's operations are located within the City of Latrobe; the Power Station, Mine and buffer zones cover some 5,500 hectares.

The Yallourn Mine is one of three large open cut brown coal mines in the Latrobe Valley in Victoria.

Coal mining operations use slope mining methodology with dozers and feeder breakers excavating and loading coal onto conveyors. Coal is transported by a series of conveyors to a 30,000 tonne raw coal bunker, which provides approximately 12 hours of coal reserves for the Yallourn W Power Station.

Overburden operations consist of both auxiliary earthmoving plant and a bucket wheel dredger to excavate the overburden which overlies the coal. A series of conveyors are used to transport the overburden material to an internal dump located within a worked-out section of the mine.

The Mine and the Power Station operate 24 hours per day, 365 days per year.

Mining operations are currently located within Maryvale Field of the Yallourn open cut mine. Coal mining commenced full operation in the Maryvale field from the start of 2015. Worked out sections of the mine are progressively rehabilitated in accordance with an approved Rehabilitation Master Plan, following mining and overburden dumping. This results in progressive shaping and stabilisation of overburden batters and dumps, coal floor coverage and some coal batter coverage. Routine maintenance programs manage the fuel loads in and around the mine areas.

Effective from the 5th of September 2002, EnergyAustralia Yallourn established a Mine Alliance contract with Roche Thiess Linfox Joint Venture (RTL), for the management and operation of the mine. The Mine Alliance contract includes operations and maintenance activities in the mine. The RTL Joint Venture, now RTL Mining and Earthworks P/L, has developed and implemented a certified SHEQ system for the management of safety, health, environment, and quality parameters for all those activities included within the scope of the Mine Alliance contract. The Bushfire Mitigation Plan forms part of EnergyAustralia Yallourn's certified HSSE Management System.

EnergyAustralia Yallourn maintains a high standard of risk management whilst achieving its primary role of coal mining and electricity generation. It operates under certified standards for health, safety and environmental management.

The high inherent risks that bushfires pose to business assets, production, health, safety, and the environment has necessitated the implementation of numerous controls to mitigate the risk of bushfire. Furthermore, a well-trained response team along with fixed reticulated and mobile fire suppression systems provides the resources to control bushfires within the property boundary.

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This bushfire mitigation plan has been developed and implemented to manage the risks to assets (including at risk electric lines) and personnel from bushfires and fires which may initiate within the site itself and those which may initiate externally and infiltrate the mine. EnergyAustralia Yallourn has site plans showing the at-risk electric lines on the site (Appendix 1 & Appendix 2) and these are available to Energy Safe Victoria and other regulatory bodies upon request.

4 Bushfire Mitigation Policy

EnergyAustralia Yallourn, as a specified operator, is committed to managing the site to mitigate against the spread of fire that initiates internally as well as the infiltration of external fires. This includes a commitment to protect at-risk electrical lines in compliance with the Electricity Safety Act and associated Electricity Safety (Bushfire Mitigation) Regulations. This will be achieved by the application of various strategies including:

- Monitoring the actions from the Bushfire Mitigation Plan through the Wildfire Committee
- Periodic inspection
- Proactive operation and maintenance plans
- Monitoring of plant and surrounding environment
- Reporting of fires
- Quick response to the extinguishing of fires
- The provision of firefighting systems, and
- Assisting fire control agencies

5 Definitions

Bushfire An unplanned vegetation fire. Includes grass fires, forest fires and scrub fires (Australian Disaster Resilience Knowledge Hub).

At-Risk electric line – means an electrical line (other than private electric line) that is above the surface of land and in a hazardous bushfire risk area (Electricity Safety Act 1998).

Specified operator – means the operator of an at risk electric line but does not include a major electricity company (Electricity Safety Act 1998).

6 Objectives of the Plan

The objective of the Bushfire Mitigation Plan is to outline the controls identified in the EnergyAustralia system to reduce the risk of bushfire damage to assets (including at-risk electric lines) and personnel on the Yallourn site from bushfires which may commence within the site itself and those which may commence externally and infiltrate the mine.

This Bushfire Mitigation Plan provides an integrated set of procedures to lead a controlled reduction in fire risk to and from all site assets, through systems of asset inspection and management, fuel reduction, ignition source containment and fire control.

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The specific objectives of the Plan are:

- To fully comply with the Electricity Safety Act and Electricity Safety (Bushfire Mitigation) Regulations
- To describe the processes and procedures for monitoring the implementation and effectiveness of the bushfire mitigation strategies and programs for the site.
- To maintain a program of asset inspections consistent with the assessed level of risk
- To operate and maintain the plant and facilities with controls to minimise the risk of initiation and/or spread of fire.
- To manage vegetation fuel loads and asset clearances in a timely manner, for minimum fire risk, consistent with relevant standards and regulation
- Assess the performance of programs supporting this Plan and strive for continual improvement.
- Communicate with external agencies through the Wildfire Risk Mitigation Committee

Whilst the effective application of this Plan does lead to reduced fire risk, there is still some residual risk. Consequently, there is a need to manage fire response, and this is managed under the strategic framework of the site Emergency Response Plan, document SHEMS12-SHE-L01, which provides guidance for the escalation of fire response through Estate Services, FRV, CFA and other combat agencies as required.

6.1 Non EnergyAustralia Overhead Lines

On the Yallourn site, there are overhead lines owned and managed by others, typically AusNet Services power lines. The AusNet Services power lines are located on easements on the site and are clearly marked on the site drawings (Appendix 2). These lines are managed by AusNet Services and the management of these lines is included in their Bushfire Mitigation Plan; hence they are not included in the EnergyAustralia Yallourn Bushfire Mitigation Plan.

There are responsibilities for both EnergyAustralia and AusNet Services to manage the easements in accordance with this Plan, the Electrical Safety (Electrical Line Clearance) Plans and with the Yallourn site lease agreement covering the line easements.

7 Site Responsibilities

7.1 Manager Responsibilities

The Mine Leader is responsible to ensure that the Bushfire Mitigation plan is developed, managed and implemented for the Yallourn Mine. The Mine Leader is responsible for the development of SHEMS13-SHE-L04 - Mine Fire Control Management Plan and the management of fuel reduction in the Mine area.

The Estate Services Alliance Leader is responsible for maintaining emergency fire response capability for the site, chairing the Wildfire Risk Mitigation Committee and developing/implementing procedures applicable to Estate Services to minimise the bushfire risk.

The Mine Risk & Compliance Lead and the Electrical Compliance Specialist are responsible for the preparation/update of the Bushfire Mitigation Plan for the Yallourn site.

The Team Engineer Electrical is responsible for the development and implementation of procedures and process for the maintenance and operation of Energy Australia overhead power lines at the Yallourn site.

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7.2 Site Management Procedure for the BMP

The Station Operating Procedure SHEMS11-SHE-P015 ensures that the Bushfire Mitigation Plan is reviewed annually, updated and checked against the current regulation, then sent to ESV before 1 July to ensure compliance with the Regulation.

7.3 Site Map

The site plan shown in appendices 1 & 2 displays the overall area of the Yallourn site. The Mine is a dynamic operation, and the overhead lines are re-routed to meet the mining requirements. Single line drawings and layout drawings are continually updated to identify the overhead lines on site. The up to date single line and layout drawings are available to Energy Safe Victoria upon request but not included as an attachment to this plan.

8 Preventative Strategies

The preventative strategies to minimise the risk of the 'at-risk' electric lines and other plant starting fires at the Yallourn site are as follows:

- Management of the Mine Fire Control Management Plan
- Management of the overhead reticulation lines including overhead thermography surveys
- Implementation of a fuel reduction program prior to and during the fire season
- Management of hot works on the site including specific requirements for conducting hot works on days of Total Fire Ban
- Managing the firefighting equipment on site
- Maintaining a process to ensure vehicles and mobile plant are suitably equipped and modified to enter a fuel rich environment.
- Managing a process to detect, report and extinguish fires in or near the Yallourn site.
- Maintenance of an emergency response procedure for the site
- Fire response training of site personnel.
- Maintenance and management of a reticulated water fire suppression system to provide a source of water to effectively extinguish fires.
- Assisting fire control agencies in the management and investigation of fires on and off site.
- Maintenance of an effective communication system
- Having trained and competent personnel to implement the bushfire mitigation plan.
- Implementation of a no smoking policy in the Mine

Managers across the site have been allocated specific responsibilities to enact the above preventative strategies. A list of the relevant site procedures is tabled in section 12 References.

The Bushfire Mitigation Plan includes fire hazard removal as well as the preparation of strategic fire breaks to ensure that the Power Station, Mine and other critical assets are protected against bushfire that occur on or external to the EnergyAustralia Yallourn property.

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9 List of all Works

9.1 Electrical Asset Management

The Mine procedure “Management of LV & HV Overhead Distribution System” documents and details the management of the site’s high voltage and low voltage overhead reticulation system. The document covers the design, maintenance and vegetation management methods for the site.

EnergyAustralia Yallourn maintains an Electrical Safety (Electrical Line Clearance) Plan (SHEMS11-SHE-L01) which provides an integrated set of procedures for the safe management of electrical line clearance and this plan links with the Bushfire Mitigation Plan.

The Mine Alliance maintains electrical assets by completing regular pole earth grid testing, thermography surveys, annual vegetation inspection and clearance, visual pole inspection, regular testing of substation transformer and 3 yearly pole integrity testing using form YMA-OPS-FO-0339 – “Pole Inspection / New Pole / Pole Removal Data Sheet”. The frequency of these tests, inspections and checks are defined in the procedure for the Management of LV & HV Overhead Distribution. Only personnel who possess the relevant competency can carry out maintenance on or near electrical assets at Yallourn. For online asset inspections this means a linesman qualification and a Certificate 2 in Asset Inspection UET20621 or equivalent. A register of authorised workers is maintained to ensure that workers have the appropriate qualifications prior to inspections or work on or near electric lines, and to monitor when refresher training is required.

All works associated with overhead powerlines including inspections and maintenance activities are managed via the Maximo Work Order system. Maximo is used to systematically manage the Initiate Work, Plan Work/Schedule Work, Do Work and Review & Close process for recording of all Work Order history and costs to the Plant Asset/Location.

Identification of defects in the system initiates creation of work orders for rectification of the defects. Work orders are classified according to the following descriptions based on the priority for the works to be completed:

Priority 1 (Urgent) Works to be scheduled and completed within 12 months.	A Work Order issued which will have an immediate impact or risk to either Health & Safety, Environment, Production or Plant. From a business perspective, a Priority 1 should be dealt with as soon as possible and should also include a telephone call to the relevant person / Team regarding the reason for the impact /risk. Maximo has an automatic feature (Escalation) around the initiation of Priority 1 Work Orders. Notification emails are delivered to the relevant Managers and Teams including details of a newly initiated Priority 1 Work Order.
Priority 2 (High Risk) Works to be scheduled and completed within 18 months.	A Work Order issued which has the potential for a high impact or risk to Health & Safety, Environment, Production or Plant. These should be dealt with promptly through the normal Work Order planning/scheduling process.
Priority 3 (Medium Risk) Works to be scheduled and completed within 36 months.	A Work Order issued which has the potential for a medium impact or risk to either Health & Safety, Environment, Production or Plant, dealt with through the normal Work Order planning/scheduling process.

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Priority 4 (Low Risk) Works to be scheduled and completed within 48 months.	A Work Order issued which has the potential for a low impact or risk to Production or Plant, dealt with through the normal Work Order planning/scheduling process.
Priority 5 (No Risk) No set timeframe for these works to be scheduled and completed.	A Work Order issued which has no impact or risk to Production or Plant. This should only be used for all general materials issues from store, including PPA & general contract administration. No Risk Plant based activities are unlikely to have the budget for work to be done.

All new overhead power line installations are designed to meet the site Electrical Safety Management Scheme and the regulator's installation standards.

The overhead lines at Yallourn are occasionally relocated and/or regularly extended as the mine progresses. Subsequently there is not a cyclic replacement program, rather overhead lines are operated and maintained on a condition basis. The maintenance program consists of inspections including yearly thermography surveys and fixed time routine maintenance; including line clearance surveys and 3 yearly pole structural assessments.

The Yallourn site maintenance and line clearance program is conducted to reduce the potential for powerlines to be impacted by fire.

On days of high fire danger, the switching of overhead power lines is minimised. Electrical operators pay particular attention to survey the area surrounding each pole switch for hot embers after switching has been completed.

On days of total fire ban all work on overhead power lines is postponed and emergency switching is carried out under Mine procedure YMA-H&S-PR-0129 - "Carrying out Hot Works on Days of Total Fire Ban".

In the event of a fire threatening the Yallourn site, the Site Emergency Response Plan is initiated with the site emergency management team directing all responses including the shutdown or isolation to electric lines as required.

All substations have fire detection systems which are checked as part of a monthly routine by a competent contractor.

9.1.1 YCB611 – Pole #2 Works

Works have been progressing to remove the condemned YBC611 Pole #2 from service including running new feeder cables underground from the YCB substation to newly installed poles (YCB622) located to the south of YCB611 Pole #2.

When the first cable is installed and operational to supply YCB622, the conductors on the condemned pole YCB611 Pole #2 will be transferred to the present pole YCB622 pole #2. This will take the condemned pole out of service.

The substantial works to complete this revised installation have been undertaken by onsite crews in conjunction with other production critical activities and the new supply is planned to be installed and commissioned on 25th October 2024 which will remove the condemned pole from service.

9.2 Wildfire Risk Mitigation Committee

The Estate Service Alliance manages the Wildfire Risk Mitigation Committee to coordinate the fuel reduction works across the site. The Wildfire Risk Mitigation Committee meets monthly, reviews the conditions on and around the site, monitors the implementation of the Bushfire Mitigation Plan and implements action to ensure

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that the EnergyAustralia Yallourn site is adequately protected against wildfire attack. A specific focus is placed on fire risk mitigation by the committee during the fire danger period.

The Wildfire Risk Mitigation Committee includes representatives from the Latrobe Shire, Fire Rescue Victoria (FRV), Ausnet, Department of Transport and Planning (DTP), Department of Energy, Environment and Climate Action (DEECA), Vic roads, V/line and the EAY contracted grazing company to discuss and monitor the fire mitigation actions particularly during the fire danger period.

Fire hazard removal works include slashing, mulching, pruning and controlled fuel reduction burns. These works are assessed prior to each fire season when a program is established and enacted. Regular inspections during progress of works are conducted to maintain hazard reduction priorities and report to management.

EnergyAustralia Yallourn has a lease with a grazing contractor over extensive perimeter lands as well as strategic areas within the Mine. The conditions of the lease require cooperation on grass fuel reduction for the annual fire season. A representative from the grazing contractor participates in the Wildfire Risk Committee meeting.

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9.3 Hot Works

All hot works on the site are managed according to specific procedures.

The Mine Hot Works Procedure provides the methodology for the undertaking of hot works within the mine. Hot Work Permits are issued for all hot works carried out in the Mine. The Issuing Authority advises personnel of all restrictions that may apply to hot works, including the non-issue of Hot Work Permits on high-risk days. Restrictions are in place for the issuing of Hot Works Permits on days of total fire ban and internal fire alerts are controlled through this procedure.

The Power Station controls the instruction Hot Works SHEMS11-SHE-P500-I01 to manage all hot works on the Power Station site for general conditions and for days of total fire ban.

9.4 Days of Total Fire Ban

The Standard Operating Procedure for Applying for FRV Permits and Internal Permits to Carry Out Hot Works on Days of Total Fire Ban SHEMS11-SHE-P001 defines the process for obtaining a total fire ban exemption for essential works.

Mine procedure "Carrying out Hot Works on Days of Total Fire Ban", must be followed if hot work needs to be done in the Mine on a total fire ban day.

Resourcing requirements are reviewed daily, and additional resources are provided on site as required in accordance with site Trigger Action Response Plan for High Fire Danger Periods and accounting for CFA Fire Danger Ratings.

9.5 Investigations

An investigation will be initiated in the event of a fire involving Yallourn's at-risk electrical lines. The investigation will use the site's investigation procedures to identify the cause of the fire and the actions required to reduce the risk of further occurrences of the incident. All fires originating from Yallourn's supply network will be reported to Energy Safe Victoria in accordance with the Electrical Safety Management Scheme.

9.6 Training and Competence

All personnel required to perform tasks detailed in this procedure are trained in the requirements defined in the site procedures, industry standards and legislation. The training of personnel is managed and recorded by training coordinators in the Mine and Power Station. All personnel carrying out work on site are fully site inducted. The induction process states the minimum requirements for carrying out work on site, the need to report fires and provide firefighting assistance within their capabilities.

All electrical operators are trained to the relevant site's procedures and competent to perform the electrical switching. All personnel carrying out maintenance work on electrical assets in the Mine are trained and competent for this work.

Site procedure SHEMS11-SHE-P502-I03 – Authorisation to perform electrical work on site, defines the process to register all authorised electrical workers for the site and ensure the competency of electrical workers.

YMA-TRN-PR-0125 Electrical work competency assessment procedure details the requirements for mine personnel electrical authorisation.

Relevant managers on site are trained on the Australasian Inter-Service Incident Management System (AIIMS) to ensure effective incident management on site.

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9.7 External Agencies

The Emergency Response Plan defines the function and responsibilities of the incident management team and the interface with emergency services and external agencies. Reporting to external agencies is done in accordance with the EnergyAustralia document SHEMS15-SHE-P001-A02 - Quick Guide - Immediate Incident Reporting. Yallourn provides assistance to fire control authorities, as required, in the investigation of fires on site.

9.8 Fire Management in the Mine

EnergyAustralia has developed a Mine Fire Control Management Plan (FCMP). The FCMP forms an integral component of EnergyAustralia Yallourn's SHE Management System and provides the framework, procedures and processes to effectively manage fire related hazards. The objectives of the FCMP are to ensure that effective processes and procedures are established, implemented and maintained to enable the effective management of fire related hazards at Yallourn Mine.

In particular, a key objective of the FCMP is to control and minimise any impact from a mine fire on the environment, public and employee safety and health, mine assets and continuity of coal supply.

In summary, the key objectives include:

- Provide the systems and processes to effectively manage the risk associated with a mine fire that could be sourced from either within the mine or external to the mine;
- Ensure public safety and health is effectively maintained;
- Minimise the impact of fire on the surrounding environment;
- Ensure public infrastructure is not adversely impacted including for example: roads, railway lines, rivers, power infrastructure, etc.;
- Maintain a safe working environment for all employees, contractors and stakeholders;
- Maintain continuity of operations, including infrastructure associated with coal supply and overburden removal;
- Comply with all relevant legal and other requirements;
- Maintain an environment of continuous improvement.

9.9 Fire Detection

Fire detection and alarm systems are used throughout the site. These systems provide early detection of fires and ensure that emergency services respond to the alarm. Alarms from the fire suppression and detection systems throughout the Yallourn Mine site are monitored in the Mine Control Room.

The Emergency and Protective Services Team monitor and respond to all Power Station alarms and arrange for FRV and CFA back up where an actual fire is detected. Alarm systems are routinely tested for functionality and defects repaired promptly by Estate Services to the standard set in AS 1851-2012.

The Mine Fire Procedure details the actions required of all personnel working in the Yallourn Mine in relation to prevention, reporting and fighting of fires in or near the Mine.

9.10 Fire Extinguishers

Fire extinguishers are maintained and managed on site. In the Mine, adequate numbers and types of extinguishers are located and easily identified throughout the Mine with daily operations inspections conducted of extinguishers fitted to machinery and periodic inspection and replacement of extinguishers conducted by fire service personnel.

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9.11 Vehicle Authorisation

Vehicles used in the Mine must be suitably equipped to enter a fire risk environment. Vehicles are not permitted to enter the Mine unless they have been inspected by a competent person according to the Vehicle Authorisation Inspection form and are authorised to enter the Mine.

9.12 Reticulated Water Fire Suppression System

The fire service pipes, sprays and pumps system undergo a structured maintenance program based on inspection. This includes;

- Routine inspections completed every 6 months.
- Thorough inspections completed every 12 months.

Actions from these inspections, and any other daily or weekly routines, are raised as work orders and given a priority ranking which determines when specific works must be completed.

9.13 Contractors

Contractors engaged in overhead line maintenance and installation must be licensed, trained and competent for the task. Contractors are monitored and audited in the conduct of these works.

All contractors are directly engaged by Energy Australia to maintain and install electrical assets.

Vegetation control companies inspect overhead conductors on a yearly basis and clear any vegetation approaching the minimum distances. Should any vegetation breach the minimum distances or contact the conductors then the line is isolated, and work is carried out under permit conditions. The minimum approach distance on site is determined more conservatively than the regulations guidelines. i.e., minimum approach distance to overhead lines is set as 5 metres.

10 Monitoring

The Wildfire Risk Mitigation Committee monitors the actions raised by the Committee to ensure that the EnergyAustralia Yallourn site is adequately protected against wildfire attack. The Committee has external representation who provide input to the meeting from a wide viewpoint to assist in the development and implementation of strategies to minimise the fire risk on site. The Mine Risk and Compliance Lead also monitors the fire mitigation strategies for the Mine and updates the Fire Control Management Plan and Bushfire Mitigation Plan as required.

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11 Auditing and Reporting

The Bushfire Mitigation Plan is audited on an annual basis. The audit process is initiated in March of every year by a work order in the site's computerised maintenance management system (Maximo). The preventive maintenance plan MHVRP410E and job plan MHVR410E defines the objectives and specifics of the audit.

The audit includes the following;

- Review the Electrical Safety (Electrical Line Clearance) Plan
- Monitor and audit the implementation of the Bushfire Mitigation Plan (this plan)
- Identify any deficiencies in the plan or the implementation.
- Monitor and audit the effectiveness of inspections under the plan.
- Propose improvements for the plan and the plan's implementation.
- Ensure any necessary training for the performance of the plan has been carried out.
- Monitor and audit the competence of persons assigned to carry out the inspections.

The audit must address the issues identified in clause 6(n) of the Electricity Safety (Bushfire Mitigation) Regulation. Any deficiencies found within the monitoring and auditing process triggers an action, which will be remedied by establishing improvements to the plan.

The revised Bushfire Mitigation Plan is then approved by the Head of Yallourn and sent to Energy Safe Victoria before July each year.

The review of the 2023/2024 plan identified that no fires had been started from any part of the at-risk electric lines. Further:

- The Yallourn Mine has a regulatory requirement to report all fires with increased potential for harm to people or damage to infrastructure to WorkSafe Victoria and Earth Resources Regulation within 24 hours of the event. Review of the reporting register identified that no failures of at-risk electric assets occurred which had the potential for a fire;
- EnergyAustralia Wildfire Risk Mitigation meetings were held on the first Thursday of every month in accordance with the schedule;
- Monthly Mine fire prevention and mitigation meetings were held prior to and during the months of high fire danger (September to March) to discuss and track the status of vegetation clearance works and fire break maintenance activities;
- The number of defects generated from thermography surveys and lines inspections are monitored to validate the frequency of inspection is adequate;
- There are currently no works outstanding in relation to the vegetation management program for clearing of vegetation within the corridors containing powerlines on the Yallourn Mine Site including identification of vegetation required to be cleared and completion of works to clear the vegetation.

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12 References

Document ID	Document Title	Version	Issue Date
A1039749	SHEMS11-SHE-P015 - Management of the EnergyAustralia Yallourn Bushfire Mitigation Plan	5.0	20/10/2020
A1039787	SHEMS11-SHE-L01 - Electricity Safety (Electrical Line Clearance) Plan	11.0	31/8/2022
A1065137	SHEMS13-SHE-L04 - Mine Fire Control Management Plan (FCMP)	5.0	20/11/2023
A1044340	SHEMS11-SHE-P500-I01 - Hot Works (Power Station)	5.1	17/2/2022
A1037878	SHEMS10-SHE-P001 - Removal of Vegetation on the EnergyAustralia Yallourn Site	2.0	16/5/2022
A1017664	SHEMS12-SHE-L01 - Emergency Response Plan	9.0	24/4/2024
A1031727	SHEMS11-SHE-P001 - Applying for CFA Permits and Internal Permits to Carry Out Hot Works on Days of Total Fire Ban	1.2	1/3/2014
A1034365	SHEMS11-SHE-P502-I03 – Authorisation to Perform Electrical Work on Site	6.1	18/7/2019
A1034637	YMA-OPS-PR-0374 - Management of LV & HV Overhead Distribution System	10.0	17/3/2021
A1031477	YMA-H&S-PR-0129 - Carrying Out Hot Works on Days of Total Fire Ban	6.0	15/12/2020
A1042354	YMA-H&S-PR-0100 - Fire Procedure	12.0	12/7/2022
A1032855	YMA-OPS-PR-0343 - Hot Works Procedure	10.0	27/5/2020
A1044137	YMA-OPS-WI-0217 - Control Centre Fire Alert	4.0	18/9/2018
A1036207	YMA-OPS-FO-0309 - Vehicle Authorisation Inspection	7.0	27/1/2018
A1049221	YMA-OPS-FO-0339 - Pole Inspection / New Pole / Pole Removal Data Sheet	6.0	20/9/2018
A1030405	SHEMS15-SHE-P001 Reporting, Investigation and Classifying Incidents	5.0	1/2/2022
A1034223	SHEMS11-ESV-P001 - Wildfire Risk Mitigation	2.0	16/7/2014
N/A	Electricity Safety Act 1998		
N/A	Electricity Safety (Bushfire Mitigation) Regulations 2023		

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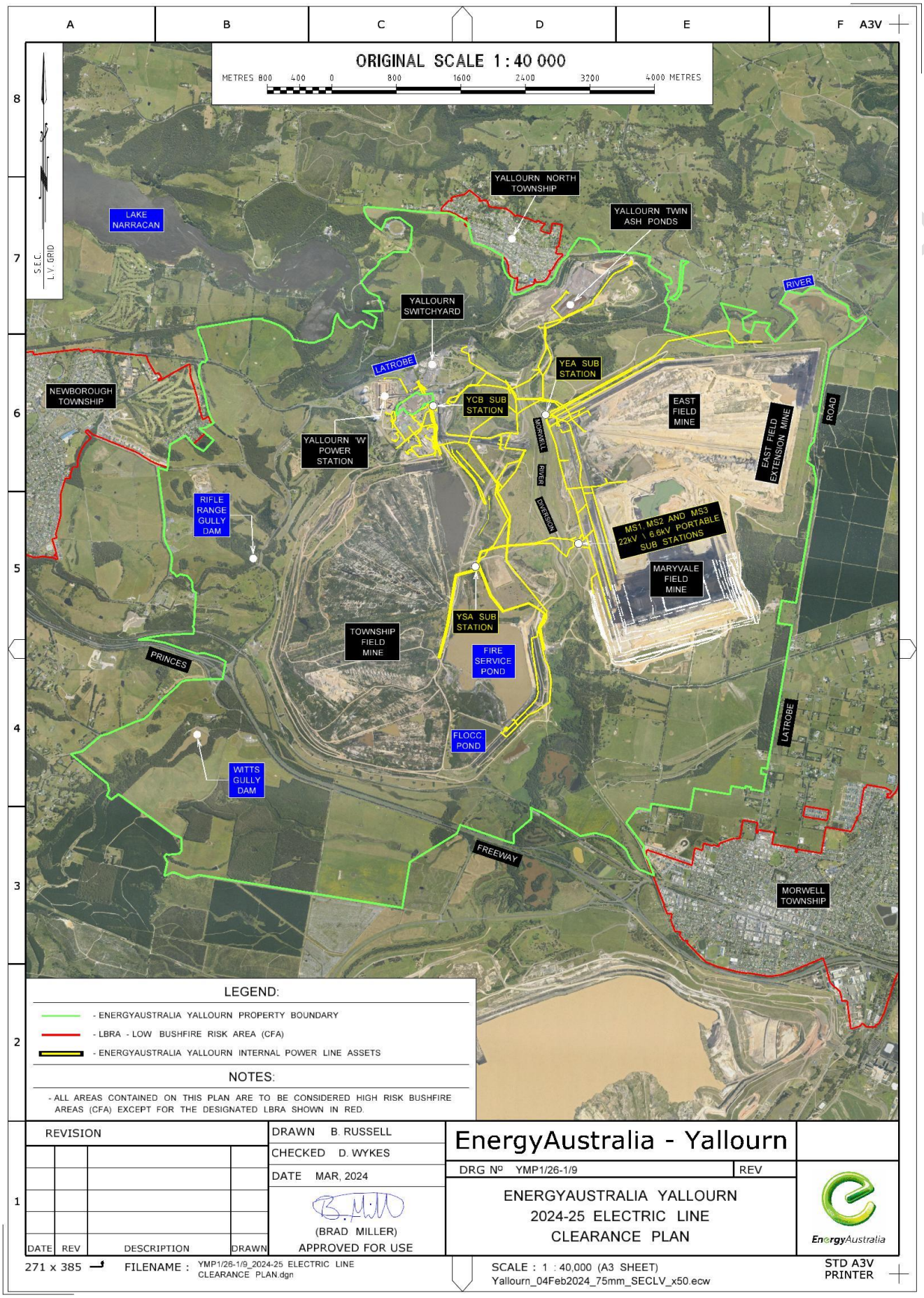
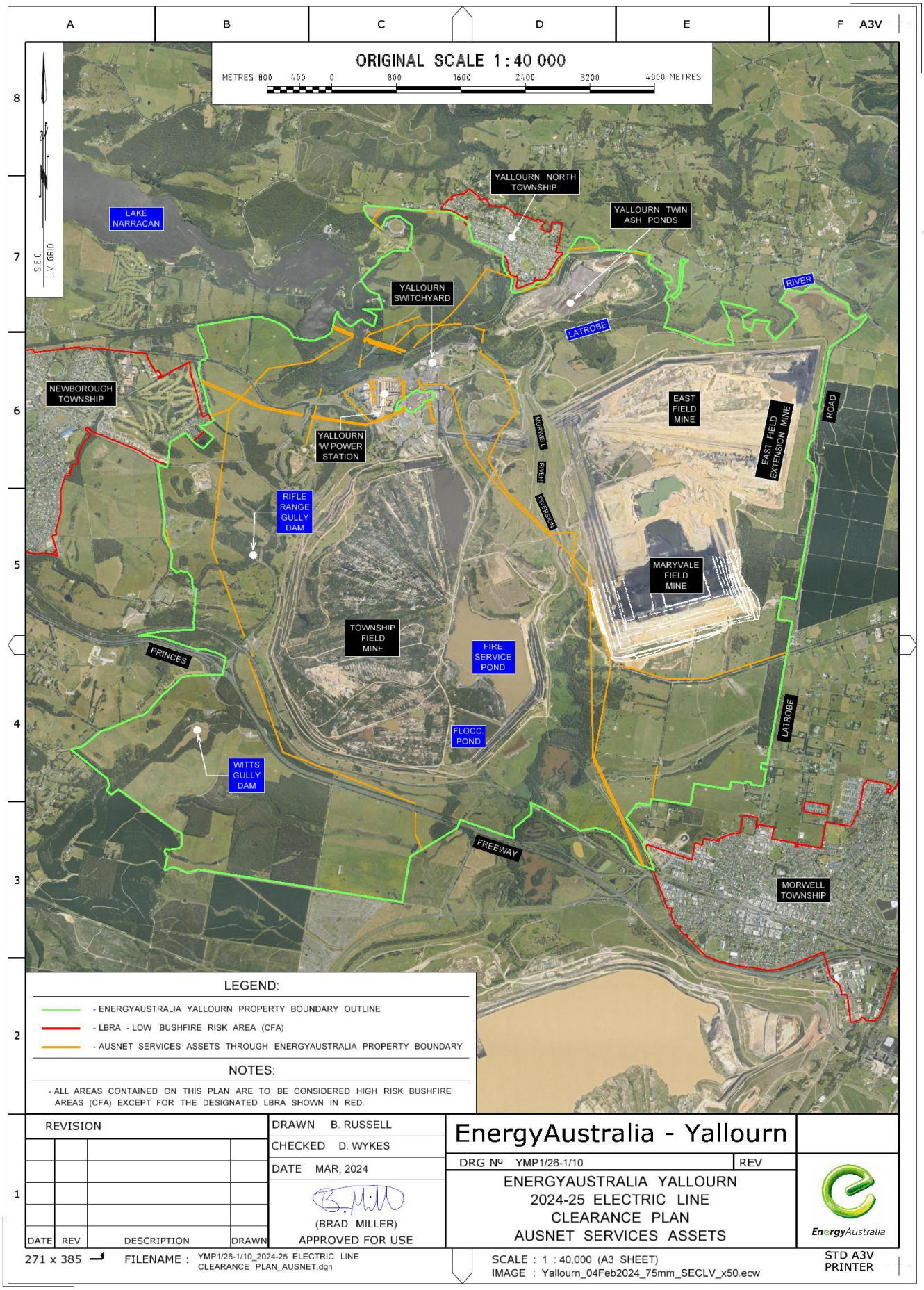
Appendix 1 - Electric Line Clearance Plan – EA Assets



Appendix 2 – Electric Line Clearance Plan – Ausnet Assets



Appendix 3 - At Risk Electric Lines detail

Line (feeder) denomination	Voltage (kV)	Number of Spans	Length (m)	Insulated (Y/N)	Number of poles	Pole material		Year of construction
						Wood	Concrete	
MS1 - 671	6.6	42	2,069	N	43	22	21	1987
MS2 - 681	6.6	16	1,132	N	17	1	16	1990
MS3 - 691	6.6	19	820	N	20	5	15	1988
YCB - 213	22	113	8,211	N	114	75	39	1980
YCB - 224	22	139	10,957	N	140	79	61	1977
YCB - 611	6.6	32	1,321	N	33	24	9	1975
YCB - 613	6.6	3	140	N	4	4	0	1988
YCB - 615	6.6	72	5,534	N	73	38	35	1972
YCB - 622	6.6	32	1,960	N	33	23	10	1975
YCB - 624	6.6	71	4,985	N	72	53	19	1974
YCB - 626	6.6	5	185	N	6	6	0	1990
YEA - 651	6.6	38	2,402	N	39	20	19	1983
YEA - 655	6.6	29	2,458	N	30	20	10	1980
YEA - 662	6.6	29	1,875	N	30	22	8	1984
YEA - 666	6.6	26	1,908	N	27	19	8	1987
YSA - 631	6.6	52	3,812	N	53	47	6	1980
YSA - 633	6.6	63	4,220	N	64	52	12	1975
YSA - 642	6.6	65	4,901	N	66	52	14	1980

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Appendix 4 - Electricity Safety (Bushfire Mitigation) Regulation reference table

EA Yallourn BMP cross reference to the regulation		
Regulation reference	**Prescribed particulars for bushfire mitigation plans—specified operators - Regulation**	**Yallourn BMP**
6a	the name, address, email address and telephone number of the specified operator	Pg. 5, Sect. 1
6b	The position, address, email address and telephone number of the person who was responsible for the preparation of the plan	Pg. 5, Sect. 1
6c	the position, address, email address and telephone number of the persons who are responsible for carrying out the plan	Pg. 5, Sect. 1
6d	the email address (if any) and telephone number of the specified operator's control room so that persons in the room can be contacted in an emergency that requires action by the specified operator to mitigate the danger of bushfire;	Pg. 6, Sect. 1
6e	the bushfire mitigation policy of the specified operator to minimise the risk of fire ignition from its at-risk electric lines	Pg. 8, Sect. 4
6f	the objectives of the plan to achieve the mitigation of fire danger arising from the specified operator's at-risk electric lines	Pg. 8, Sect. 6
6g	a description, map or plan of the land to which the bushfire mitigation plan applies, identifying the location of the specified operator's at-risk electric lines	Pg. 10, Sect. 7.3
6h	the preventative strategies and programs to be adopted by the specified operator to minimise the risk of the specified operator's at-risk electric lines starting fires	Pg. 10, Sect. 8
6i	a plan for inspection that ensures that all of the specified operator's at-risk electric lines are inspected at regular intervals of no longer than 37 months	Pg. 11, Sect. 9.1
6j	details of the processes and procedures for ensuring that each person who is assigned to carry out the inspections referred to in paragraph (i) has satisfactorily completed a training course approved by Energy Safe Victoria and is competent to carry out such inspections	Pg. 11, Sect. 9.1
6k	details of the processes and procedures for ensuring that persons (other than persons referred to in paragraph (j)) who carry out or will carry out functions under the plan are competent to do so	Pg. 11, Sect. 9.1 Pg. 14, Sect. 9.6
6l	the operation and maintenance plans for the specified operator's at-risk electric lines—	
(i)	in the event of a fire; and	Pg. 11, Sect. 9.1 Pg. 15, Sect. 9.8
(ii)	during a total fire ban day; and	Pg. 14, Sect. 9.4
(iii)	during a fire danger period	Pg. 12, Sect. 0
6m	the investigations, analysis and methodology to be adopted by the specified operator for the mitigation of the risk of fire ignition from its at-risk electric lines	Pg. 14, Sect. 9.5
6n	details of the processes and procedures by which the specified operator will:	
(i)	monitor the implementation of the bushfire mitigation plan; and	Pg. 12, Sect. 0
(ii)	audit the implementation of the plan	Pg. 17, Sect. 11
(iii)	identify any deficiencies in the plan or the plan's implementation	Pg. 17, Sect. 11
(iv)	change the plan and the plan's implementation to rectify any deficiencies identified under subparagraph (iii);	Pg. 17, Sect. 11
(v)	monitor the effectiveness of inspections carried out under the plan; and	Pg. 17, Sect. 11
(vi)	audit the effectiveness of inspections carried out under the plan	Pg. 17, Sect. 11
6 (o)	the policy of the specified operator in relation to the assistance to be provided to fire control authorities in the investigation of fires near the specified operator's at-risk electric lines	Pg. 15, Sect. 9.7

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